

What is claimed is:

1. A recordable optical disk where disk-applicable-recording-speed information indicative of applicable recording speeds for the optical disk is pre-recorded on a track of said optical disk during manufacture of the optical disk.
2. A recordable optical disk as recited in claim 1 wherein the disk-applicable-recording-speed information is pre-recorded in pre-groove wobbles or pre-pits of the optical disk.
3. A recordable optical disk as recited in claim 2 wherein the disk-applicable-recording-speed information is incorporated in either one or both of lead-in start time information and lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk.
4. A recordable optical disk as recited in claim 2 wherein the disk-applicable-recording-speed information is information indicative of an upper limit value of the applicable recording speeds.
5. A recordable optical disk as recited in claim 2 wherein the disk-applicable-recording-speed information is information indicative of lower and upper limit values of the applicable recording speeds, and wherein one of the lower and upper limit values of the applicable recording speeds is incorporated in lead-in start time information recorded in the pre-groove wobbles or pre-pits of the optical disk and another of the lower and upper limit values of the applicable recording speeds is incorporated in lead-out start time information recorded in the pre-groove wobbles or pre-pits of the

optical disk.

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5. A recordable optical disk as recited in claim 2 wherein the disk-applicable-recording-speed information is information indicative of lower and upper limit values of the applicable recording speeds, and wherein both of the lower and upper limit values of the applicable recording speeds are incorporated in either one or both of lead-in start time information and lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk.

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6. A recordable optical disk as recited in claim 1 wherein information indicative of a type and maker of said optical disk is incorporated in time information pre-recorded on a track of said optical disk during manufacture of said optical disk.

8. An optical disk recording device comprising:

an disk-applicable-recording-speed information reproducing circuit that reproduces, from among disk readout signals generated by reading an optical disk to be recorded on, disk-applicable-recording-speed information pre-recorded on a track of the optical disk during manufacture of the optical disk; and

a control circuit that performs recording on the optical disk after setting a recording speed for the optical disk to a predetermined speed value within a range specified by the disk-applicable-recording-speed information reproduced by said disk-applicable-recording-speed information reproducing circuit.

9. An optical disk recording device as recited in claim 8 wherein said

disk-applicable-recording-speed information reproducing circuit reproduces the disk-applicable-recording-speed information pre-recorded in pre-groove wobbles or pre-pits of the optical disk.

Sub 2 10. An optical disk recording device for recording on an optical disk where disk-applicable-recording-speed information is incorporated in either one or both of lead-in start time information and lead-out start time information recorded in pre-groove wobbles or pre-pits of the optical disk, said optical disk recording device comprising:

a time information reproducing circuit that reproduces, from among disk readout signals generated by reading the optical disk to be recorded on, either one or both of the lead-in start time information and the lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk; and

a control circuit that determines disk-applicable recording speeds on the basis of either one or both of the lead-in start time information and the lead-out start time information reproduced by said time information reproducing circuit and performs recording on the optical disk after setting a recording speed for the optical disk to a speed value within a range of the determined disk-applicable recording speeds.

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~~11.~~ An optical disk recording device as recited in claim ~~10~~¹¹ wherein the disk-applicable-recording-speed information is information indicative of an upper limit value of disk-applicable recording speeds incorporated in the lead-in start time information or lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk and wherein said control circuit sets the recording speed for the optical disk to a speed value not exceeding the upper limit value of the disk-applicable recording speeds.

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~~12.~~ An optical disk recording device for recording on a recordable optical disk where one of lower and upper limit values of disk-applicable recording speeds is incorporated in lead-in start time information recorded in pre-groove wobbles or pre-pits of the optical disk and another of the lower and upper limit values of the disk-applicable recording speeds is incorporated in lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk, said optical disk recording device comprising:.

a time information reproducing circuit that reproduces, from among disk readout signals generated by reading the optical disk to be recorded on, the lead-in start time information and the lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk; and

a control circuit that determines one of the lower and upper limit values of the disk-applicable recording speeds on the basis of the lead-in start time information reproduced by said time information reproducing circuit and another of the lower and upper limit values of the disk-applicable recording speeds on the basis of the lead-out start time information reproduced by said time information reproducing circuit and

performs recording on the optical disk after setting a recording speed for the optical disk to a speed value within a range of the lower limit value to the upper limit value of the disk-applicable recording speeds.

13. An optical disk recording device for recording on a recordable optical disk where both of lower and upper limit values of disk-applicable recording speeds are incorporated in either one or both of lead-in start time information and lead-out start time information recorded in pre-groove wobbles or pre-pits of the optical disk, said optical disk recording device comprising:

a time information reproducing circuit that reproduces, from among disk readout signals generated by reading the optical disk to be recorded on, the lead-in start time information or lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk; and

a control circuit that determines the lower and upper limit values of the disk-applicable recording speeds on the basis of the lead-in start time information or lead-out start time information reproduced by said time information reproducing circuit and performs recording on the optical disk after setting a recording speed for the optical disk to a speed value within a range of the lower limit value to the upper limit value of the disk-applicable recording speeds.

10 14. An optical disk recording device as recited in claim 8 wherein said control circuit sets the recording speed to a highest speed value settable within a range of the disk-applicable recording speeds.

15. An optical disk recording device comprising:
an disk-applicable-recording-speed information reproducing circuit


that reproduces, from among disk readout signals generated by reading an optical disk to be recorded on, disk-applicable-recording-speed information pre-recorded on a track of the optical disk during manufacture of the optical disk;

a display unit that displays disk-applicable recording speeds on the basis of the disk-applicable-recording-speed information reproduced by said disk-applicable-recording-speed information reproducing circuit;

a recording speed designating section that designates a particular recording speed value on the basis of an operation by a user; and

a control circuit that performs recording on the optical disk after setting a recording speed for the optical disk to the particular recording speed value designated by said recording speed designating section.

16. An optical disk recording device as recited in claim 15 wherein the disk-applicable-recording-speed information reproducing circuit reproduces the disk-applicable-recording-speed information pre-recorded in pre-groove wobbles or pre-pits of the optical disk.

 17. An optical disk recording device for recording on a recordable optical disk where disk-applicable-recording-speed information is incorporated in either one or both of lead-in start time information and lead-out start time information recorded in pre-groove wobbles or pre-pits of the optical disk, said optical disk recording device comprising:

an disk-applicable-recording-speed information storage circuit that stores therein correspondencies between values of either one or both of the lead-in start time information and the lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk and values of disk-applicable recording speeds;

a time information reproducing circuit that reproduces, from among disk readout signals generated by reading the optical disk to be recorded on, either one or both of the lead-in start time information and the lead-out start time information recorded in the pre-groove wobbles or pre-pits of the optical disk;

a display unit that displays the disk-applicable-recording-speed information that is read out from said disk-applicable-recording-speed information storage circuit on the basis of either one or both of the lead-in start time information and the lead-out start time information reproduced by said time information reproducing circuit;

a recording speed designating section that designates a particular recording speed value on the basis of an operation by a user; and

a control circuit that performs recording on the optical disk after setting a recording speed for the optical disk to the particular recording speed value designated by said recording speed designating section.